

Title (en)
Process for the preparation of synthesis gas

Title (de)
Verfahren zur Herstellung von Synthesegas

Title (fr)
Procédé pour la préparation de gaz de synthèse

Publication
EP 1403216 B1 20110323 (EN)

Application
EP 03020677 A 20030911

Priority
• DK PA200201433 A 20020926
• DK PA200201434 A 20020926

Abstract (en)
[origin: EP1403216A1] Production of synthesis gas by catalytic steam reforming of a hydrocarbon containing feedstock involves providing heat for the steam reforming reactions in steam reformers by indirect heat exchange with the combined effluents from the steam reformers with the autothermal steam reformer, and adding carbon monoxide containing gas to the feedstock prior to the steam reforming in the autothermal steam reformer and/or in the steam reformers. Production of synthesis gas by catalytic steam reforming of a hydrocarbon containing feedstock in parallel in an autothermal steam reformer (7) and in steam reformers (4, 9, 10, 11, 12, 14) in series involves providing heat for the steam reforming reactions in the steam reformers by indirect heat exchange with the combined effluents (32) from the steam reformers with the autothermal steam reformer, and adding carbon monoxide containing gas to the feedstock prior to the steam reforming in the autothermal steam reformer and/or prior to the steam reforming in the steam reformers. The carbon monoxide containing gas has a molar ratio of hydrogen to carbon of less than 4.5 and is added in an amount resulting in a product stream having a molar ratio of hydrogen to carbon monoxide of 1.8-2.3.

IPC 8 full level
C01B 3/38 (2006.01); **C10L 3/08** (2006.01); **B01J 8/04** (2006.01); **C10G 2/00** (2006.01)

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